

***RISK
MANAGEMENT
T
FORCE XXI***

Battle and Non-Battle Casualties

Rate* per 1,000 soldiers and percent

Army	W.W.II 1942-45	Korea 1950-53	Vietnam 1965-72	DS/S 1990-91	NTC FY93 (BLUFOR-GROUND)
Accident	95.57 56%	120.33 44%	154.66 54%	11.14 75%	2.23 3%
Friendly Fire	1.50*** 1%	3.03*** 1%	2.67*** 1%	.68 5%	7.87**** 9%
Enemy Action	73.61 43%	148.56 55%	131.20 45%	2.90 20%	74.17**** 88%

* Per 12 months for W.W.II, Korea and Vietnam; 14 months for DS/S; per rotation NTC.

** Deaths and injuries (ground and aviation) for entire war/operation.

*** Research based estimate (2% of all direct- and indirect- fire losses).

**** Simulated (MILES) direct fire vehicle kills.

CAUSE FACTORS

- ***Human Error*** - an individual's actions or performance is different than what is required and results in or contributes to an accident.
- ***Material Failure/Malfunction*** - a fault in the equipment that keeps it from working as designed, therefore causing or contributing to an accident.
- ***Environmental Conditions*** - any natural or manmade surroundings that negatively affect performance of individuals, equipment or materials and causes or contributes to an accident.

SOURCES OF CAUSE FACTORS

Individual Failure - Soldier knows and is trained to standard but elects not to follow the standard (self-discipline).

Leader Failure - Leader does not enforce known standard.

Training Failure - Soldier not trained to known standard (insufficient, incorrect or no training on task).

Standards Failure - Standards/procedures not clear or practical, or do not exist.

Support Failure - Equipment/material

SOURCES OF CAUSE FACTORS

EXAMPLES

Individual Failure - Soldier knows there is a requirement to be certified on servicing tires and although he isn't certified, he attempts to service the tire anyway so he won't have to wait for maintenance personnel. Can't be that hard.

Leader Failure - Supervisor sees the soldier changing the tire and doesn't stop him.

Training Failure - Soldier has never had any training on how to service split rims and didn't know that a tire cage and air extension is required for inflation.

Standards Failure - The unit SOP requires the use of a tire cage, however it does not require the use of a twelve foot air gage extension.

Support Failure - The unit tire cage was not properly constructed and the unit does not have

Key Definitions

- ***Risk Management*** - the process of identifying and controlling hazards to protect the force.
 - ◆ It's five steps represent a logical thought process from which users develop tools, techniques, and procedures for applying risk management in their areas of responsibility.
 - ◆ It is a closed-loop process applicable to any situation and environment.

Key Definitions

- ***Hazard*** - any real or potential condition that can cause injury, illness or death of personnel, or damage to, or loss of equipment or property, or mission degradation. (AR 310-25)
- ***Risk*** - chance of hazard or bad consequences; exposure to chance of injury or loss. (Oxford Dictionary, 1976)

Key Definitions

- ***Risk level*** is expressed in terms of hazard probability and severity.
 - ◆ ***Probability*** - the likelihood that an event will occur.
 - ◆ ***Severity*** - the expected consequence of an event in terms of degree of injury, property damage, or other mission impairing factors (loss of combat power, etc.,) that could occur.

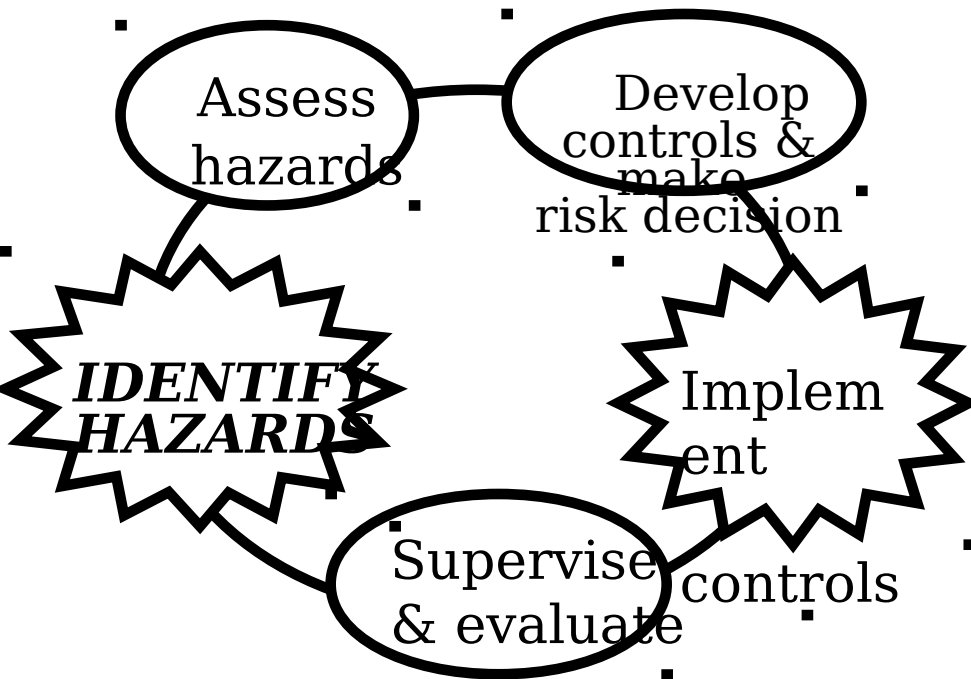
Key Definitions

- ***Risk Assessment*** - the identification and assessment of hazards (first two steps of the Risk Management process).
- ***Controls*** - actions taken to eliminate hazards or reduce their risk(s).

Key Definitions

- ***Residual Risk*** - the level of risk remaining after controls have been identified and selected.
- ***Risk Decision*** - the decision to accept or not accept the risk(s) associated with an action made by the commander, leader, or the individual responsible for performing that action.

Risk Management Process



- ***Identify Hazards.*** Identify hazards to the force. Consider all aspects of current and future situations, environment, and known historical problem areas.

METT-T

Mission - Specified, implied and subtasks.

Enemy - Size and capability (SALUTE).

Terrain/Weather - Environmental conditions.

Troops and Equipment -

- Troops - training, type, number, and physical condition.

- Equipment - amount, type, design, and condition.

Time available - plan, rehearse, and conduct .

ID HAZARDS - OBJECTIVE

OBJECTIVE - Identified those hazards **most likely** to result in loss of combat power

CRITERIA ***For “Most Likely Hazard”*** - Hazard is not adequately controlled at this echelon or next lower echelon.

- Hazard should be tracked via risk management work sheet.

IS THE HAZARD ADEQUATELY CONTROLLED?

**Identified
METT-T
hazard**

		<u>Adequate</u> YES	
		NO	
[-Support - Is type/amount/capability/condition of support adequate to control hazard? - Personnel - Equipment/material - Supplies - Services/facilities		
	-Standards - Is guidance/procedure adequately clear/practical/specific to control hazard?		
	- Training - Is training adequately thorough and recent to control hazard?		
	- Leader - Are leaders ready, willing and able to enforce standards required to control hazard?		
	- Individual - Is soldier performance and conduct sufficiently self-disciplined to control hazard?		

A - If all “yes”, no further action.

- If one or more “no”, risk manage this hazard.

Detection Resources and Techniques

- **Brain Storming**
- **Experts**
- **Publications**
- **Accident
Information**
- **Scenario Thinking**

WHILE YOU ARE DOING THIS



TROOP LEADING PROCEDURES

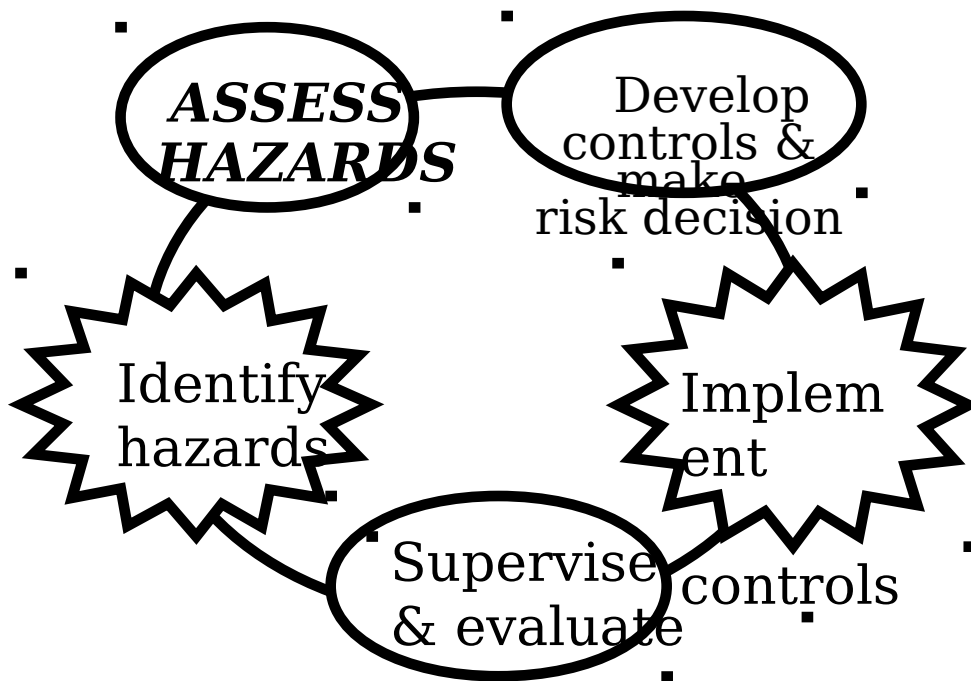
- **RECEIVE THE MISSION**
- **ISSUE THE WARNING ORDER**
- **MAKE A TENTATIVE PLAN**

DO THIS



IDENTIFY HAZARDS

Risk Management Process.



- **Assess Hazards.**
Assess hazards to determine risks. Assess the impact of each hazard in terms of potential loss and cost, based on probability and severity.

RISK ASSESSMENT MATRIX

RISK ASSESSMENT MATRIX						
E - EXTREMELY HIGH RISK H - HIGH RISK M - MODERATE RISK L - LOW RISK		PROBABILITY				
		FREQUENT	LIKELY	OCCASIONAL	SELDOM	UNLIKELY
S E V E R I T Y	CATASTROPHIC	E	E	H	H	M
	CRITICAL	E	H	H	M	L
	MARGINAL	H	M	M	L	L
	NEGLIGIBLE	M	L	L	L	L

PROBABILITY				
Frequent	Likely	Occasional	Seldom	Unlikely

Frequent - Occurs often, continuously experienced.

Likely - Occurs several times.

Occasional - Occurs sporadically.

Seldom - Unlikely, but could occur at some time.

Unlikely - Can assume it will not occur.

SEVERITY

S E V E R I T Y	Catastrophic	Death or permanent total disability, system loss, major property damage.
	Critical	Permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage.
	Marginal	Minor injury, lost workday accident, compensable injury or illness, minor system damage, minor property damage.
	Negligible	First aid or minor supportive medical treatment, minor system impairment.

WHILE YOU ARE DOING THIS

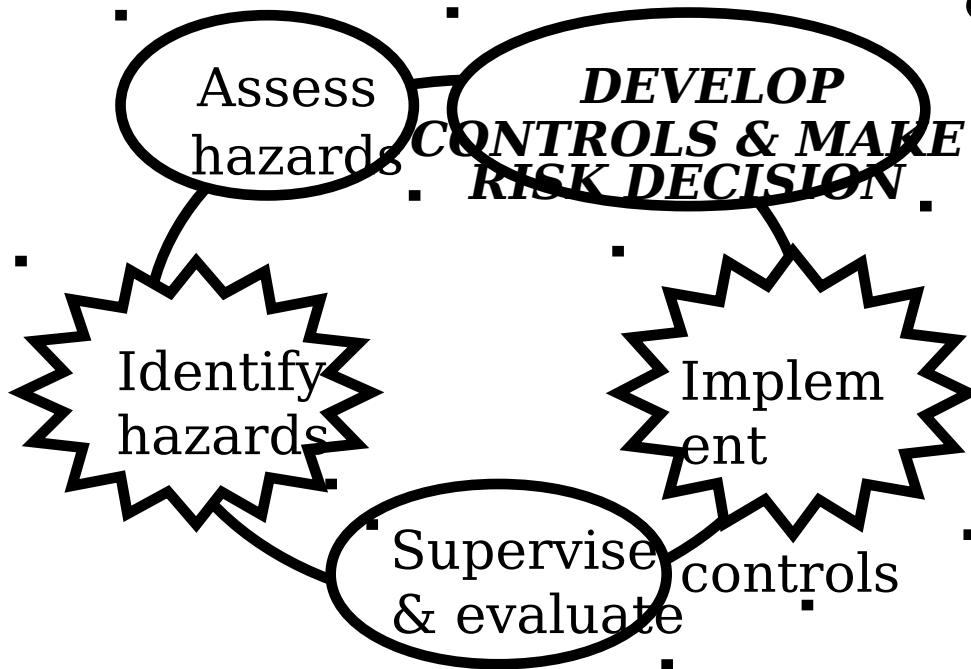


- TROOP LEADING PROCEDURES**
- **“MAKE A TENATIVE PLAN”**
 - **MAKE AN ESTIMATE OF THE SITUATION**
 - **DEVELOP SITUATION AND COA**
 - **ANALYZE COURSES OF ACTION**
 - **DETAILED MISSION ANALYSIS**
- DO THIS***



ASSESS THE HAZARDS

Risk Management Process.



- ***Develop Controls and Make Risk Decisions.***

Develop control measures that eliminate the hazard or reduce its risk. As control measures are developed, risks are reevaluated until all risks are reduced to a level where benefits outweigh potential cost.

Develop Controls & Make Risk Decision

CONTROLS

For each hazard

- **Implement existing controls if adequate, if not**
- **Adjust to make adequate or develop new controls**

Consider:

- **Realism, time, money and resources**
- **Minimize chance of accidents**

DECISION ***Minimize chance of mission***

accomplishment ***Determine level of residual risk***

- **Have the *appropriate level* of command accept risk**

WHILE YOU ARE DOING THIS



TROOP LEADING PROCEDURES

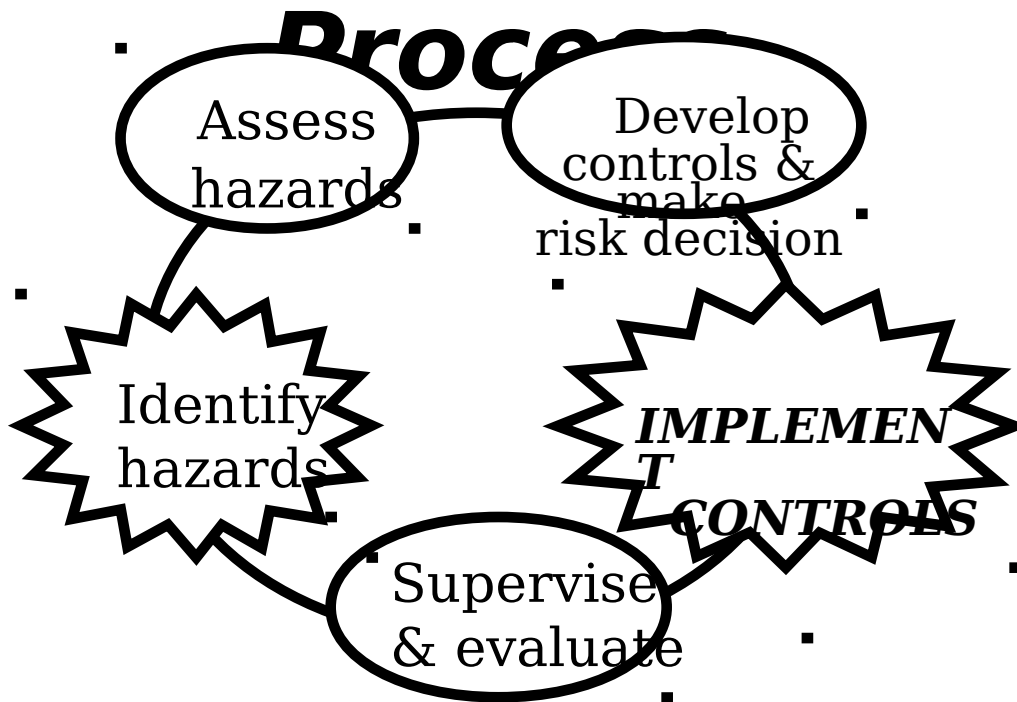
- **COMPARING COURSES OF ACTION**
- **MAKING DECISION**
- **EXPANDING SELECTED COA INTO A TENTATIVE PLAN**

DO THIS



DEVELOP CONTROLS AND MAKE RISK DECISION

Risk Management



- ***Implement Controls.***

Put controls in place that eliminate the hazards or reduce their risks.

IMPLEMENT CONTROLS

- ♦ **Standing Operating Procedures (SOP'S)**
- ♦ **Orders**
- ♦ **Briefings and back-briefs**
- ♦ **Training**
- ♦ **Rehearsals**
- ♦ **New equipment**

WHILE YOU ARE DOING THIS



TROOP LEADING PROCEDURES

- **INITIATING MOVEMENT**
- **RECONNOITERING**
- **COMPLETING THE PLAN**
- **ISSUING THE ORDER**

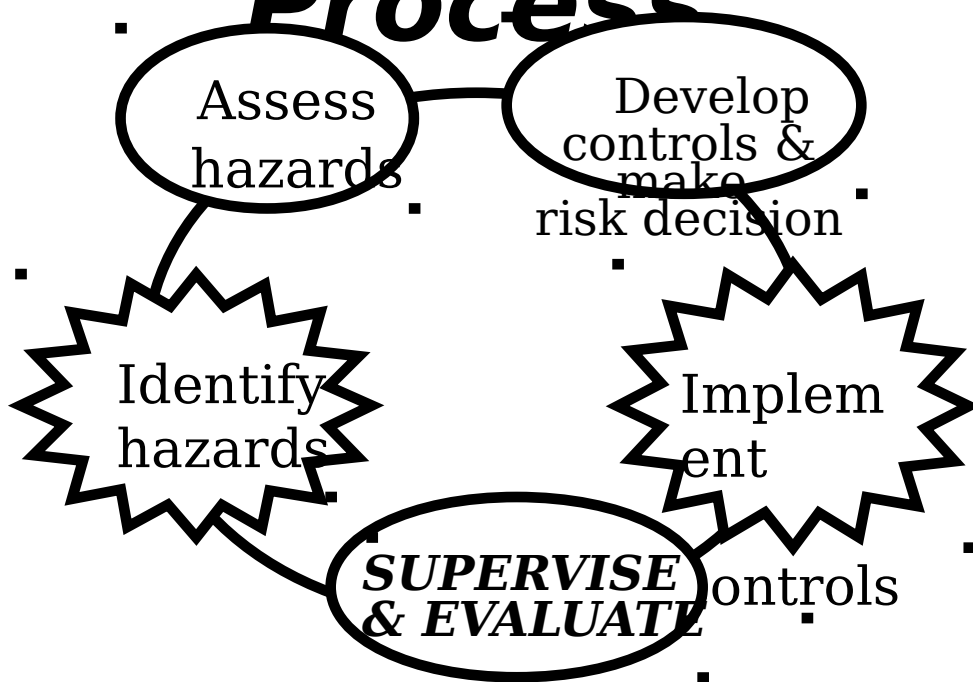
DO THIS



IMPLEMENT CONTROLS

Risk Management

Process



Supervise & Evaluate.

Perform to, and enforce standards and controls. Evaluate the effectiveness of controls and adjust/update as necessary.

Supervise

All Soldiers responsible (self-discipline) for:

- ***Performing to standard***
- ***Executing controls***
- ***Recognizing unsafe acts or conditions***

Leaders are also responsible for enforcement

Evaluate

- ***Effectiveness of Controls (adjust/update)***
- ***Feedback - AAR's***

WHILE YOU ARE DOING THIS



TROOP LEADING PROCEDURES

**- SUPERVISE AND REFINE THE
PLAN**

DO THIS



SUPERVISE AND EVALUATE

‘Risk management is the Army’s principal risk-reduction process to protect the force. Our goal is to make risk management a routine part of planning and executing operational missions.’

Chief of Staff, Army, July 1995

RISK MANAGEMENT WORKSHEET

1. MSN/TASK : PREPARED:	2. DTG BEGIN :	3. DATE END :
4. PREPARED BY: _____ RANK/LAST NAME/DUTY POSITION		

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. CONTROL EFFECTIVE

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): LOW MODERATE HIGH EXTREMELY HIGH	10. RISK DECISION AUTHORITY: _____ RANK/LAST NAME/DUTY POSITION
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RISK MANAGEMENT WORKSHEET

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13 EFFECTIVE CONTROLS

RISK MANAGEMENT WORKSHEET

1. MSN/TASK : PREPARED:	2. DTG BEGIN :	3. DATE END :
4. PREPARED BY: _____ RANK/LAST NAME/DUTY POSITION		

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. CONTROL EFFECTIVE

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): LOW MODERATE HIGH EXTREMELY HIGH	10. RISK DECISION AUTHORITY: _____ RANK/LAST NAME/DUTY POSITION
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RISK MANAGEMENT WORKSHEET

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. EFFECTIVE CONTROLS

**SAMPLE
SOLUTION - SCENARIO 1**

RISK MANAGEMENT WORKSHEET

PAGE 1 of 2

1. MSN/TASK : PREPARE <u>Execute Attack ARTEP 7-8-MTP (7-3/4-1100)</u>	2. DTG <u>020500 MAR 97</u>	3. DATE <u>2 MAR 97</u> END :
4. PREPARED BY: <u>2LT Eager 1st Plt Ldr Co. B</u> RANK/LAST NAME/DUTY POSITION		

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. C ONTROLS E FFECTIVE
Enemy obstacles	H	Attach Engineer Sqd to the plt Develop obstacle reduction plan Rehearse obstacle reduction techniques	M	OPORD Unit TACSOP OPORD Eng Handbook Unit TACSOP FM 5-34 Eng Handbook	Direct Sprv Cont Sprv Cont Sprv	
Adverse environmental conditions - cold, rain/snow check - limited visibility (night, snow/rain)	E	Adjust SP time to allow for adverse weather conditions Proper protective gear worn Brief techniques for cold weather injury recognition and administering first aid. Use NVD's Rehearse movement techniques Recon the route Adjust movement interval to meet existing conditions	H	OPORD Unit TACSOP Unit TACSOP FM 21-11 Unit TACSOP OPORD OPORD Unit TACSOP OPORD OPORD	Direct Sprv PCC/PCI Buddy Sys Soldiers Man PCC/PCI Cont sprv Cont sprv Cont sprv	Spot

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): LOW MODERATE <u>HIGH</u> EXTREMELY HIGH	10. RISK DECISION AUTHORITY: <u>CPT BRADLEY, COMMANDER</u> RANK/LAST NAME/DUTY POSITION
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RISK MANAGEMENT WORKSHEET

PAGE 2 of 2

SAMPLE SOLUTION-SCENARIO

1

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. EFFECTIVE CONTROLS
<p>Inexperienced soldiers</p> <p>- Terrain (cliffs, ravines, open areas)</p> <p>- Misidentification of friendly vs. threat personnel and equipment</p> <p>- Unfamiliar with new TACSOP</p>	E	<p>Buddy team experienced soldiers with inexperienced</p> <p>Use climbing ropes Use rope bridges Bypass Cross at night Use smoke Practice techniques</p> <p>Squad leader initiates fires</p> <p>Conduct opportunity training on ID</p> <p>Drill procedures that apply to mission</p>	H	<p>Battle roster</p> <p>TC 90-6-1 Mountaineering</p> <p>OPORD Unit TACSOP Verbal/Rehearse</p> <p>Use visual recognition markings Ranger Hndbk OPORD</p> <p>Verbal</p>	<p>Cont Sprv</p> <p>Cont Sprv</p> <p>Spot rpt Cont Sprv Direct Sprv</p> <p>Cont Sprv</p> <p>Buddy Sys</p> <p>Rehearse/brief</p>	

Unit

Direct

**SAMPLE
SOLUTION - SCENARIO 2**

RISK MANAGEMENT WORKSHEET

PAGE 1 of 2

1. MSN/TASK : Perform an Attack by Fire 17-237-10-MTP,			271500MARXX 281800MARXX			DTG BEGIN :	
3. DATE PREPARED: 27 MAR XX (17/30219)							
4. PREPARED BY: 2 Lt Washington, Plt Ldr 2nd Plt B Co 2/ 66th Armor			RANK/LAST NAME/DUTY POSITION				

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. C O N T R O L S
Obstacles - Enemy Tank Ditch - Enemy Wire Obstacle	E	Look for By Pass Route Request Engineer Support for Breeching Operation Actions at an Obstacle Drills	H	Unit TACSOP, FM 17-15 OPORD Rehersal	Cont Supervision Cont Supervision Cont Supervision	
Enemy Forces - 1 Chemical Attack Company - Chemical Agents - Maneuvering in a Chemical Environment	E	SP in MOPP II Mount M8 Alarm on Vehicle Use Tank NBC System when Alarm goes off Perform PMCS on Tank NBC System	H	OPORD Unit TACSOP Unit TACSOP, FM 17-15 TM 9-2350-264-10	Cont Supervision Cont Supervision Cont Supervision Cont Supervision	
Unreliable Soldier Discipline - Uniform - PMCS	H	Brief Leaders and Soldiers on proper Uniform Brief Leaders and Soldiers on importance of PMCS and Discipline	M	Verbal Unit TACSOP, Verbal	Cont Supervision Cont Supervision	
Friendly Fire - Converging Forces - Friendly Artillery Fire and Smoke	E	Graphic Control Measures, Situational Awareness Positive ID Communication , Cross-Talk	H	OPORD ,Unit TACSOP Unit TACSOP Spot Report Situation Report,	Cont Supervision Cont Supervision Verbal Cont Supervision	
Adverse Environmental Conditions - Extreme Heat	H	Implement Hydration Plan Monitor Diet Establish Rest Plan	M	OPORD, TACSOP Unit TACSOP Verbal Instruction	Monitor Spot Check Monitor	

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): <div style="display: flex; justify-content: space-around; align-items: center;"> LOW MODERATE HIGH EXTREMELY HIGH </div>	10. RISK DECISION AUTHORITY: CPT Greenwood Cdr B Co 2/66th Armor RANK/LAST NAME/DUTY POSITION
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RISK MANAGEMENT WORKSHEET

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SAMPLE SOLUTION-SCENARIO

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5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. EFFECTIVE CONTROLS
Terrain - Steep Inclines - Rocky Cropping - Deep Ravines	H	Select Most Experienced Driver Conduct Map Recon of Routes IN / Out Adjust Speed and Distance to Fit Condition Conduct Roll-Over Drills prior to SP	M	Battle Roster Unit TACSOP, FM 17-15 Verbal Instruction Rehersal	Cont Supervision Spot Report Cont Supervision Cont Supervision	
Continuous Operation - High Tempo - Fatigue	H	Establish a Rest / Sleep Plan Decrease Work Load Allow Time to Prepare for Upcoming Mission	M	OPORD Verbal Instruction Unit TACSOP	Monitor Cont Supervision Cont Supervision	
Inexperienced Soldiers	E	Create Learning Environment / Walk through Rehearse Battle Tasks Monitor and Supervise Closely	H	Unit TACSOP, FM 17-15 Rehersal , FM 17-15 Verbal	Cont Supervision Cont Supervision Direct Sprv	
Mishandling of Ammo During Cross - Leveling	H	Enforce Proper Loading / Unloading Procedure Enforce No Smoking ON / IN Vehicles	M	Unit TACSOP Unit TACSOP Verbal	Direct Supervision Cont Supervision	
Equipment Unserviceable - Unserviceable MOPP Gear	H	Request Resupply of NBC Gear Utilize Tank NBC System	M	Unit TACSOP TM 9-2350-264-10	Cont Supervision Cont Supervision	

1. MSN/TASK : RELOCATE FARP OPERATIONS		2. DTG	BEGIN : 032100NovXX
3. DATE PREPARED: 03 NOV XX			
4. PREPARED BY: 1LT KERSENE POL PLATOON LEADER			
END : 040230NovXX			
RANK/LAST NAME/DUTY POSITION			

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW IMPLEMENTED	12. HOW SUPERVISED	13. EFFECTIVE CONTROLS
Enemy Operations - Possible ADA threat	H	Rehearse React to Near/Far Ambush MOPP II at LZ Ensure M-8 Alarms Operational Rehearse React to artillery fires/ADA fire	M	VERBAL OPORD OPORD/PMCS FM 17-12-1,2	DIRECT SPV DIRECT SPV PCC/PCI DIRECT SPV	
Insufficient number and types of personnel to complete mission - Number of personnel - Inexperienced soldiers - Unreliable soldier discipline	E	Request supplemental personnel or relief from other commitments until completion of the mission. Put experienced personnel with inexperienced/high risk soldiers	M	VERBAL REQUEST BATTLE ROSTER VERBAL ORDER	DIRECT SPV DIRECT SPV	

9. MISSION/TASK RISK AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): <div>LOWMODERATEHIGHEXTREMELY HIGH</div>	10. RISK DECISION AUTHORITY: 1LT KERSENE, POL PLATOON LEADER Rank/Last Name/Duty Position
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RISK MANAGEMENT WORKSHEET

PAGE __2__ of __2__

SAMPLE

SOLUTION-SCENARIO

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5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. EFFECTIVE CONTROLS
Limited Visability conditions - Night - Dust/Brown out conditions - Slingload Operations (Blivets) - Misidentification of Friendly Forces (Friendly Fire)	E	Establish adequate LZ spacing at FARP Ensure NVD/NVG's Operational Re-emphasize brown- out reaction proceedures to ground personnel Ensure flight crews are current in NVG sling load Ops. Establish Fire Support Coordination Measures	M	OPORD/TACSOP PMCS BREIFING OPORD/ATM Trng Records OPORD	DIRECT SPV PCC/PCI DIRECT SPV PCC/PCI SITREP DIRECT SPV	
Terrain - Open exposure to enemy fires - Limited access to natural cover -Unfamiliar location	E	Construct hasty fighting positions upon arrival Ensure best use of available cover S-3 provide individual familiar with area to augment platoon during insertion	M	OPORD Briefing Verbal Request	DIRECT SPRV DIRECT SPRV DIRECT SPRV	

**SAMPLE
SOLUTION - SCENARIO 4**

RISK MANAGEMENT WORKSHEET

PAGE 1 of 2

1. MSN/TASK PREPARED: PROVIDE AIR DEFENSE FOR A CONVOY	2. DTG: 010300MarXX Completion	3. DATE 201300FebXX END :
4. PREPARED BY: <u>2LT Pegleg. PLT LDR</u> RANK/LAST NAME/DUTY POSITION		

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. CONTROLS EFFECTIVE
Soldier fatigue	H	Reiterate to all leaders that sleep/rest plans must be enforced. Have leaders turn in shift schedules.	L	Brief/TACSOP Brief/ TACSOP	Spot Check Direct Sprv	
Unfamiliar Environment-desert op's	H	Conduct train-up on desert op's and	M	NTC Study Gde Briefing	Direct Sprv	
Rocky/steep Terrain	H	hazards. Decrease in convoy speed (preposition stationary elements to assure continual support).	M	OPORD BRIEF Rehearsal	Spot Check Direct Sprv	
Adverse environment- Limited visibility - 5% illumination (road hazards & firing on friendly)	H	Conduct dry run. Ensure driver and assistant have NVDs. TC must request confirmation through PLT LDR for permission to fire if aircraft cannot be positively identified.	M	TACSOP Briefing	Sr Occp Sprv Sr Occp Sprv	

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): LOW MODERATE <u>HIGH</u> EXTREMELY HIGH	10. RISK DECISION AUTHORITY: CPT SCUDBUSTER, COMMANDER RANK/LAST NAME/DUTY POSITION
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RISK MANAGEMENT WORKSHEET

PAGE 2 of 2

SAMPLE SOLUTION-SCENARIO 4

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. EFFECTIVE CONTROLS
Firing outside sector of fire - (firing on friendly)	E	Conduct Battery lanes trng for convoy op's, concentrating on communication between fire units. Check range cards for accuracy and understanding. Conduct intense threat/friendly identification training. Use IR markings.	H	Rehearsal Verbal Order FM & Training Oportunity Trng OPORD & Brief	Direct Sprv Direct Sprv Spot Check Spot Check	
Incorrect vehicle intervals when firing - (backblast)	E	Conduct estimating distance training. Reiterate proper vehicle intervals for convoy op's. Conduct Plt firing on the move drills.	M	FM & Training TACSOP & Brief Rehearsals	Direct Sprv Direct Sprv Direct Sprv	

RISK MANAGEMENT WORKSHEET

SAMPLE SOLUTION-SCENARIO 5

PAGE 1 of 1

1. MSN/TASK : DELIVERY ARTILLERY FIRES (ARTEP 6-511-MTP) PREPARED:	2. DTG: 211200FebXX Unknown	3. DATE 211200FebXX
4. PREPARED BY: <u>CPT BLACK, BATTERY COMMANDER</u> <div style="text-align: center; font-size: small;">RANK/LAST NAME/DUTY POSITION</div>		

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. C ONTROLS E FFECTIVE
Enemy - obstacles	E	Request engineer support. Pre- mission briefing with engineers to identify marking of obstacle lanes	H	Coordination with higher command FRAGO	Direct Sprv	
Inexperienced personnel - New equipment - Proficiency in fire procedures - reaction to enemy counter-fire.	E	Rehearse procedures of electronic equipment and manual fire direction drills Practice procedures for tactical displacement.	H	FRAGO Crew drills Rehearsals	Direct Sprv Direct Sprv	
Adverse environmental conditions - (Severe winds, sandstorms, dust) - Equipment damage/failure - limited visibility	H	Ensure all exposed equipment is secured. Ensure PMCS for extreme conditions is conducted. Request additional stockage of electronic LRU's for PLL. Personnel wear protective goggles. Decrease vehicle speed and intervals	M	FRAGO TM -10, OPORD Coordination with higher command OPORD OPORD	Spot check Direct Sprv Direct Sprv Spot check Spot check	
Continuous operations during mission- (Soldier fatigue)	H	Plenty of rest before SP. Go to minimum manning (rest) when the tactical situation permits. Forward periodic reports to higher on physical condition of personnel.	M	Verbal Order FRAGO Sit Report	Spot check Direct Sprv	

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): <div style="display: flex; justify-content: space-around; align-items: center;"> LOW MODERATE HIGH EXTREMELY HIGH </div>	10. RISK DECISION AUTHORITY: <u>LTC BLUE, BATTALION COMMANDER</u> <div style="text-align: center; font-size: small;">RANK/LAST NAME/DUTY POSITION</div>
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**SAMPLE
SOLUTION - SCENARIO 6**

RISK MANAGEMENT WORKSHEET

PAGE 1 of 2

1. MSN/TASK : PREPARED:	Conduct Breaching Operations	2. DTG: 112400 112400 NovXX	3. DATE 1 Nov XX	END :
4. PREPARED BY:	1LT Oasis / Safety Officer, A Co / 22nd EN BN RANK/LAST NAME/DUTY POSITION			

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. C ONTROLS E FFECTIVE
Enemy Operations: -Motorized Rifle Platoon -Obstacle	E	Train on breaching obstacles while under enemy observation / fire. Rehearse with fire support personnel on calls for fire. Preplan targets with TF on known enemy locations.	H	TACSOP & OPORD	Spot Check/ Direct Sprv	
Adverse environmental conditions: -Dry / Dusty -Wind -Cold	H	Conduct training on desert weather and terrain. Ensure soldiers have appropriate cold weather / desert equipment	M	Opportunity Trng OPORD	Direct Sprv PCC / PCI	
Terrain conditions: -Steep ravines -Sandy areas -Loose rocks	H	Depart earlier so that troop movement can travel slower.	L	OPORD	Direct Sprv	

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED: **LOW** **MODERATE** **HIGH** **EXTREMELY HIGH**

LEVEL TO RE-ASSESS FROM: one arm intervals.

10. RISK DECISION AUTHORITY:

LTC BLAST, COMMANDER

RANK/LAST NAME/DUTY POSITION

RISK MANAGEMENT WORKSHEET

PAGE 2 of 2

SAMPLE SOLUTION-SCENARIO

6

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. EFFECTIVE CONTROLS
Inexperienced / untrained soldiers: -Breaching force -Support force -Assault force	E	Identify soldiers with experience and assign to breaching forces. Rehearse on the task. Team up inexperienced soldiers with experienced ones.	M	OPORD	Spot Check/ Direct Sprv	
Limited Visibility: -Night operations -Shortage of operational NVG's	E	Hand receipt NVG's from TF. Collect all NVG's and redistribute based on mission priorities.	M	TACSOP & OPORD	Direct Sprv	
Continuous Operations	H	Establish sleep/rest plans	M	OPORD	Direct Sprv	

**SAMPLE
SOLUTION - SCENARIO 7**

RISK MANAGEMENT WORKSHEET

PAGE 1 of 2

1. MSN/TASK : PREPARED: PLAN OCCUPATION OF A NEW AREA OF OPERATION	2. DOWNOFFNOVXX 071700NOVXX	3. DATE 040600NOVXX END :
4. PREPARED BY: <u>CPT GREYHOUND, COMMANDER</u>		
RANK/LAST NAME/DUTY POSITION		

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. CONTROLS EFFECTIVE
Enemy indirect fire and dismounted patrols.	E	Send advance element recon route and to clear and secure new area. Coordinate fire support. Rehearse react to near/far ambush and actions on contact.	H	OPORD TACSOP OPORD Verbal & rehearse Briefing	Direct Sprv Spot Check Spot Check	
Possible enemy employment of NBC - unit untrained in crossing contaminated area.	E	Increase intervals between vehicles. BN NBC team check route in advance. Conduct drills for crossing an NBC area.	M	OPORD Rehearsal Verbal Order PCI	Direct Sprv Direct Sprv	
Possible mine fields	E	SP in MOPP II. Mount M-8 alarms. Coordinate engineer suport to mark/clear obstacles.	M	Verbal & OPORD Verbal & TACSOP	Spot Check Spot Check	
Adverse terrain- new area.	H	Ensure all soldiers have strip maps with authorized routes and danger areas marked. Coordinate engineer support to	L	Verbal & OPORD Brief	Direct Sprv Direct Sprv	

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE):

LOW MODERATE **HIGH** EXTREMELY HIGH

10. RISK DECISION AUTHORITY:

LTC BIGRIG, COMMANDER

RANK/LAST NAME/DUTY POSITION

RISK MANAGEMENT WORKSHEET

PAGE 2 of 2

SAMPLE

SOLUTION-SCENARIO

7

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. EFFECTIVE
Convoy during limited visibility	E	Decrease speed. Ensure BO markers are operational. Ensure NVD's are on hand/operational. Establish check points. Conduct refresher night drivers training and NVD familiarization. Use experienced operators for deployment with inexperienced operators as TC's.	M	Brief & OPORD PCC/PCI PCC/PCI Brief & OPORD Verbal & rehearse FRAGO	Cont Sprv Spot check Spot Check Direct Sprv Direct Sprv Spot check	
Improper operation of M939 vehicle	H	Rebrief hazards associated with M939. NCO's TC M939 vehicles. Re-emphasize seatbelt use. Ensure throttle control not engaged once vehicle is in gear. Check tire pressure. Enforce speed limitations.	M	Briefing Verbal Briefing Briefing PCC/PCI FRAGO	Direct Sprv Spot check Spot check Cont Sprv Spot check Cont Sprv	
Inclement weather - cold and damp.	H	Identify all personnel whom are previous cold weather casualties. Check often. Conduct periodic inspections of soldiers feet, hands etc.. daily. Hydration & diet. Establish required extra clothing to be carried with the soldier for missions which take the soldier outside the cantonment area and/or for guard. Conduct refresher cold weather trng	L	Verbal & TACSOP Brief & PCI Brief, TACSOP & PCI Training	Cont Sprv/ Buddy Sys Spot chk & Buddy Sys Cont Sprv Direct Sprv	

**SAMPLE
SOLUTION - SCENARIO 8**

RISK MANAGEMENT WORKSHEET

PAGE 1 of 1

1. MSN/TASK : PREPARED: <u>Install LOS Radio Terminal AN/TRC 190 (V)</u>	2. DTG <u>080500</u> MarXX <u>080900</u> MarXX	3. DATE <u>0709007</u> MarXX
4. PREPARED BY: <u>2LT Sparky, PLT LDR</u> <div style="text-align: center; font-size: small;">RANK/LAST NAME/DUTY POSITION</div>		

5. HAZARDS	6. INITIAL RISK LEVEL	7. CONTROLS	8. RESIDUAL RISK LEVEL	11. HOW TO IMPLEMENT	12. HOW TO SUPERVISE	13. CONTROLS EFFECTIVE
Enemy Operations- Sqd size patrol probes	E	Request additional personnel for security.	M	FRAGO	Direct Sprv	
Inexperience Soldiers	H	Team up experienced with inexperienced personnel.	M	VERBAL ORDER	Spot Check	
Rough Terrain and Visibility Limited by Dust	H	Adjust speed and interval to meet current conditions.	M	OPORD	Assist Driver	
Adverse Environment- Cold weather	M	Ensure soldiers wear and take proper cold weather gear	L	FRAGO	PCC/PCI Spot Check	
Continuous Operations - (Soldier fatigue)	H	Ensure leaders turn-in shift schedules.	M	VERBAL ORDER	Direct Sprv	

9. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE ONE): <div style="display: flex; justify-content: space-around; align-items: center;"> LOW MODERATE HIGH EXTREMELY HIGH </div>	10. RISK DECISION AUTHORITY: <u>2LT SPARKY, PLT LDR</u> <div style="text-align: center; font-size: small;">RANK/LAST NAME/DUTY POSITION</div>
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RISK MANAGEMENT QUIZ & EVALUATION EXERCISE RESULTS

[illegible]

QUIZ SCORE SUMMARY

BEST	=	%
AVERAGE	=	%
WORST	=	%
GO	-	%

EXERCISE SUMMARY

PROBLEM AREAS }
GO = %